## Apparatus for analyzing an audio signal with regard to rhythm information of the audio signal by using an autocorrelation function

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## Abstract

An apparatus for analyzing an audio signal with regard to rhythm information of the audio signal by using an autocorrelation function comprises a filter bank for separating the audio signal into at least two sub-band signals. The sub-band signals are examined with regard to periodicities by an autocorrelation function, to obtain rhythm raw-information for the at least two sub-band signals. To reduce or eliminate the ambiguities of the autocorrelation function for periodical signals, the rhythm raw-information is postprocessed to obtain postprocessed rhythm raw-information for the sub-band signal. The rhythm information of the audio signal is established based on the postprocessed rhythm raw-information. By the sub-band-wise ACF postprocessing, ACF ambiguities are already eliminated where they originate, and rhythm portions are added at double tempi, which an autocorrelation function processing does normally not provide, so that, as a result, a more robust determination of the rhythm information of the audio signal arises.